

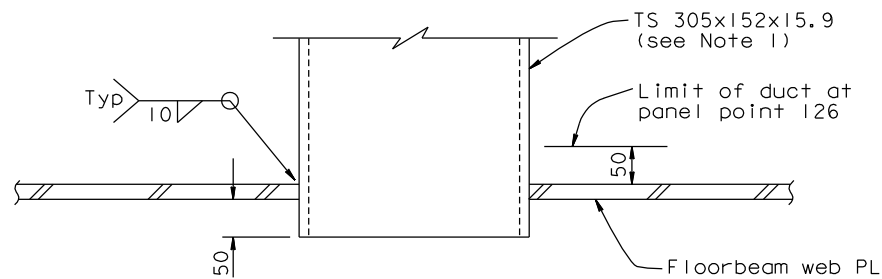


DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	80	13.2/13.9	965R1	1204

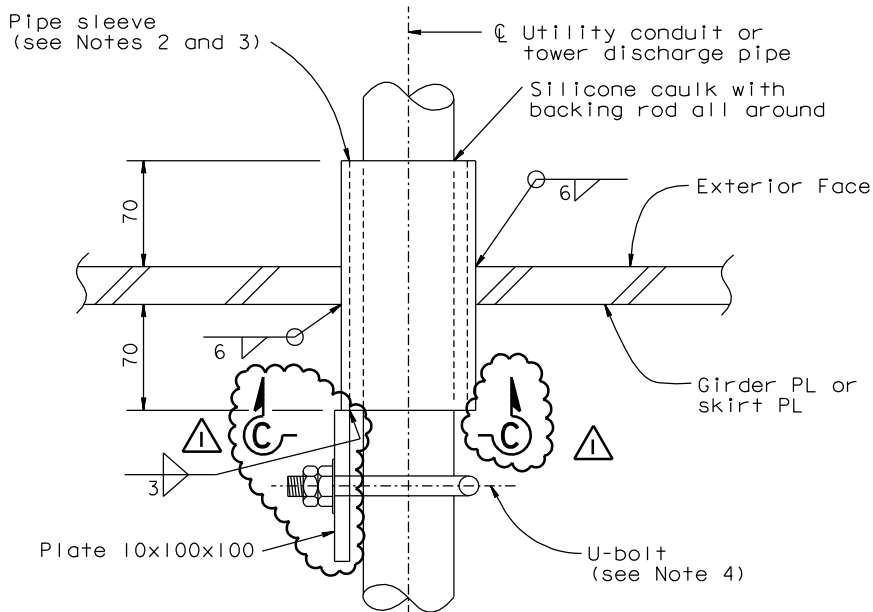
*George Baker*  
REGISTERED ENGINEER - CIVIL  
1-27-03  
PLANS APPROVAL DATE  
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

T.Y. LIN / MOFFATT & NICHOL  
825 BATTERY STREET  
SAN FRANCISCO, CA 94111

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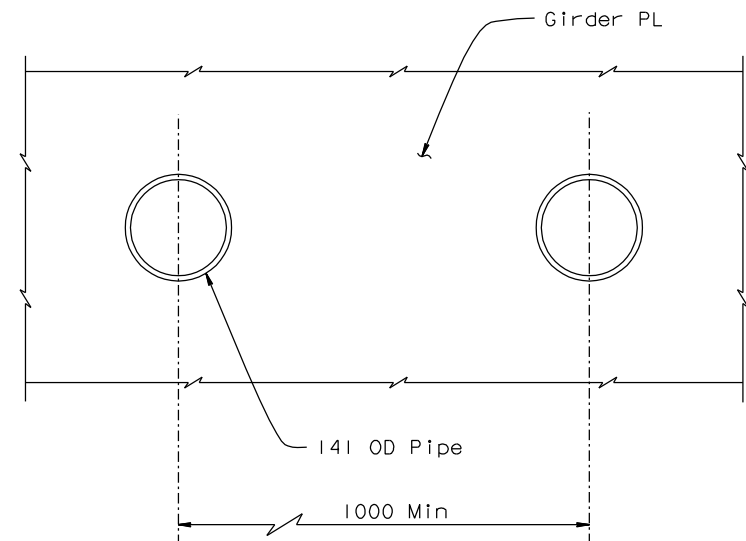
**TYPICAL UTILITY DUCT DETAIL  
AT PIER E2 AND PANEL POINT 126**  
1:5



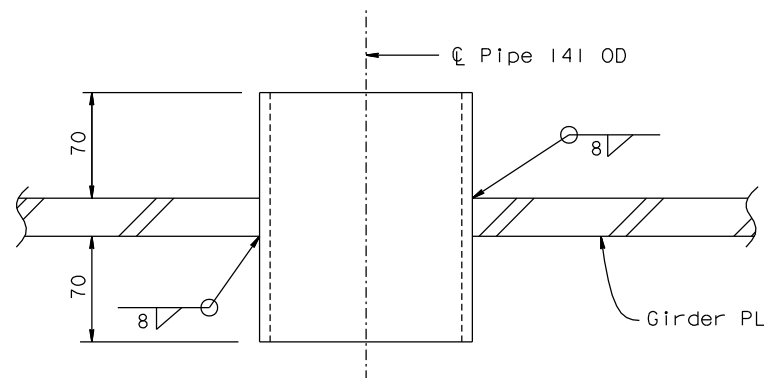
**TYPICAL UTILITY CONDUIT AND TOWER  
DISCHARGE PIPE PENETRATION DETAIL**  
1:2.5

**PIPE SLEEVE TABLE**

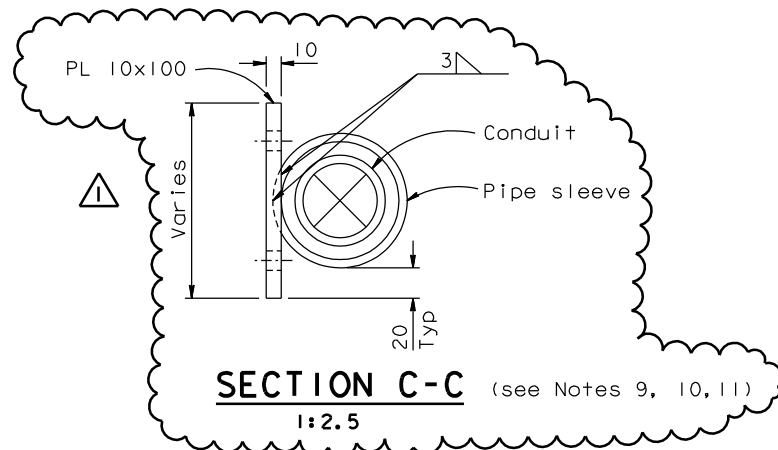
Conduit Nominal size	Pipe sleeve Nominal size	Minimum Spacing (See Note 8)
27	51	150
41	64	200
53	76	250
63	89	300
78	102	500
91	127	1000
103	127	1000



**TYPICAL UTILITY CABLE PENETRATION DETAIL**  
1:5



**SECTION B-B** (see Note 5)  
1:2.5



**SECTION C-C** (see Notes 9, 10, 11)  
1:2.5

**NOTES:**

1. TS 305x152 at Pier E2 shall extend through all three webs of floorbeam E2.
2. All pipe sleeves shall be A53 GR B or an equivalent steel grade as approved by the Engineer and shall be detailed to accommodate actual utility conduit and pipe sizes. For utility conduit, pipe and cable sizes, see "Road Plans". For tower discharge pipe, see "Tower Drainage Details No.1" sheet.
3. For pipe sleeves sizes, see "Pipe Sleeve Table". Contractor shall be responsible for fit-up, support and sealing of pipes and conduits in the pipe sleeves. Contractor may select alternative pipe sleeve sizes to suit the actual conduits and pipes installed.
4. For conduit mounting details, see "Road Plans".
5. For mounting and sealing cables in pipe sleeves, see "Road Plans".
6. For conduit penetrations at panel point 41, see "Girder Transition Near Tower" sheets.
7. For conduit penetrations at utility platforms, see "Typical Crossbeams Details" sheets.
8. Unless otherwise noted or approved by the Engineer pipe sleeves may not be located in the unreinforced girder skin plates at less than the minimum spacing.
9. 10 mm plate welded to pipe sleeve to vary in width depending on O.D. of pipe.
10. Dimension and size of holes in plate depend on U-bolt size.
11. Edge of plate to align with inside edge of pipe sleeve.

REQUESTS FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE					
1	05/06/08	BARRIER MODIFICATIONS	DT	AS	44
MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
REVISIONS					

**CONTRACT CHANGE ORDER NO. \_\_\_\_\_**  
**SHEET \_\_\_\_\_ OF \_\_\_\_\_**



FOR REVISIONS ONLY

R. Valizadeh/V. Toan/Y.L./W.L./F.C.  
DESIGN OVERSIGHT  
*R. Valizadeh / V. Toan / Y. Liu*  
SIGN OFF DATE 05/06/08

DESIGN	BY G. Baker	CHECKED T. Ho
DETAILS	BY S. Camo	CHECKED T. Ho
QUANTITIES	BY C. Mauch	CHECKED D. Harrison

**PREPARED FOR THE  
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION**

R. Manzanarez  
PROJECT ENGINEER

BRIDGE NO.	34-0006L/R
KILOMETER POST	13.2/13.9

**SAN FRANCISCO OAKLAND BAY BRIDGE  
EAST SPAN SEISMIC SAFETY PROJECT  
SELF-ANCHORED SUSPENSION BRIDGE  
(SUPERSTRUCTURE & TOWER)  
UTILITY DETAILS NO. 1**

Rev. Date: 5-18-98

ORIGINAL SCALE IN MILLIMETERS  
FOR REDUCED PLANS

CU 04  
EA 0120F1

DISREGARD PRINTS BEARING  
EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY)

08/08/99	05/11/01	04/08/02	07/24/02	12/19/02	SHEET 548R1 OF
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